FE124

Diagram No. 1257-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey Field Examination

Field No. SO-1554

Office No. FE-124

LOCALITY

State Florida

General Locality Tampa Bay

Locality Causeway Channel

1954

CHIEF OF PARTY
R.C. Bolstad

LIBRARY & ARCHIVES

DATE July 13, 1954

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

FE124

NOTE: Anew system for registering Field Examinations (FE's) was established in 1980. All FE's are consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as;

FE No.3 1954

Diag. Cht. No. 1257-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. SO-1554 Office No.

LOCALITY

State Florida

General locality Tampa Bay

Locality Causeway Channel

1954

CHIEF OF PARTY

Roswell C. Bolstad

DATE

B-1870-1 (1)

FE No. 3
1954

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. .....

Field No. SO - 1554

State ..... Florida .....

General locality ..... Tampa Bay .....

Locality ..... Causeway Channel .....

Scale ..... 1:10,000 ..... Date of survey ..... April & May 1954 .....

Instructions dated ..... 24 March 1954 .....

Vessel ..... Ship SOSBEE .....

Chief of party ..... Roswell C. Bolstad .....

Surveyed by ..... Arthur L. Wardwell .....

Soundings taken by fathometer, graphic recorder, ~~xxxxxxxxxxxx~~ pole .....

Fathograms scaled by ..... personnel of ship SOSBEE .....

Fathograms checked by ..... personnel of ship SOSBEE .....

Protracted by .....

Soundings penciled by .....

Soundings in ~~xxxxx~~s feet at MLW ~~XXXX~~W .....

REMARKS: .....

.....

.....

.....

.....

.....

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY NO. ~~H~~-FE 3(1954) (Field No. SO-1554)

West Coast of Florida - Tampa Bay - Causeway Channel

Scale 1:10,000 27 April to 10 May 1954

U.S.C.& G.S.S. SOSBEE R. C. Bolstad, Commanding

A. PROJECT:

No project number was assigned to this survey. Original instructions were contained in Director's letter dated 24 March 1954 (ref. 22/MEK, S-2-SO)

B. SURVEY LIMITS AND DATES:

The area covered is the vicinity of the channel which was dredged by the contractor in obtaining fill material for the causeway approach to the bridge now being constructed over lower Tampa Bay. Instructions called for determination of the southern end of this channel, between the southern limit of the SOSBEE's 1952 work and the deep water near Mullet Key Shoal Light. However, channel lines were run northward to the junction of this channel with the east-west dredged channel, forming a part of the Intracoastal Waterway, near latitude 27° 41.6'. When it was noticed that the latest chart of the area did not show the channel as extending northward to the deep water just northeast of Indian Key, it was decided to run some channel lines in that area, even though copies of the previous survey were not furnished for anything north of latitude 27° 41'.

This survey will supplement and join H-7970, 1952, scale 1:10,000.

Hydrography was done on 27, 28 and 29 April 1954. On 10 May additional work was done to investigate doubtful fathometer returns near Indian Key.

C. VESSEL AND EQUIPMENT:

Skiff No. 735 - wooden, 25 feet long, propelled by outboard motors - was used. Two 808 type depth recorders were used; No. 115-S on the first three days and No. 140-SP on d day. Pole soundings were taken in shoal water and to investigate doubtful shoal soundings.

D. TIDE AND CURRENT STATIONS:

No current stations were occupied. A tide staff was installed at Pt. Pinellas, leveled in to tidal bench marks there, and read every half hour while hydrography was being done.

E. SMOOTH SHEET:

Not within the scope of this report.

F. CONTROL STATIONS:

Triangulation stations are all on the North American 1927 datum and are listed below:

BID - BID 1941-52 Lat. 27° 40' 51.618" N., Long. 82° 41' 21.383" W., from work of ship HYDROGRAPHER in 1949.

MAX - MAXIMO 1908, geographic position from page 724, Third-order triangulation, vicinity of Tampa Bay.

BUS - BUSH KEY (U.S.E.) 1937-49 Lat. 27° 39' 51.060" N. Long. 82° 41' 11.872" W., from work of the ship HYDROGRAPHER in 1949.

MUL - MULLET KEY SHOAL LIGHT 1925, geographic position from page 724, Third-order triangulation, vicinity of Tampa Bay.

TAMP - TAMP 1954, R. C. Bolstad, Chief of Party

BUNK - BUNK 1954, R. C. Bolstad, Chief of Party

PAN - SPANK 1954, R. C. Bolstad, Chief of Party

Topographic stations were located on planetable sheet, Field No. SO-A-54.
T-7109 (1954)

Signal SIT on this survey is the same object as SIC on H-7970 (1952) SIT and ANT are the locations of apparently permanent structures put up by the surveyors in the triangulation for the causeway and bridge. SIT was located by direction and taped distance from BUNK 1954. ANT was located by cut from BUNK 1954 and using the bridge engineer's computed distance from SIT.

G. SHORELINE AND TOPOGRAPHY:

Shoreline of the causeway is from planetable sheet, Field No. SO-A-54.
T-7109 (1954)

H. SOUNDINGS:

In depths of more than four or five feet, an 808 model portable depth recorder was used. A sounding pole, graduated in feet, was used to obtain the shoaler depths and for shoal investigation. Bar checks were taken to obtain the initial setting and to verify the soundings as recorded.

On b and c days, several erroneous returns were obtained by the fathometer in the area north of the northerly bridge, between signals FUN and FOX. This area was fairly well covered on d day and many of the shoal indications were disproved. A list of these questionable soundings follows:

1. Soundings of 6.4, 7.2 and 7.4 feet at position 5b and two intervals after - disproved by soundings between positions 1c and 2c; by cross lines at 11d to 12d; 13d to 14d; 17d to 18d; and 19d to 20d; also detached positions 59d and 60d, when hand lead soundings were taken. The bottom here is very soft, which does not account for the shoal returns.

2. One minute after position 5b, a sounding of 9.6 feet is disproved by soundings between 4c and 5c. A similar shoal indication was recorded on the latter line, but does not occur at the same place, according to time.

3. The 8-foot sounding 15 seconds before position 3c was disproved by soundings between 24c and 25c.

4. The 10-foot sounding at position 3c was disproved by cross line 25d to 26d.

5. An 8-foot sounding 37 seconds after position 4c is disproved by soundings between positions 81b and 82b, and 8c to 9c.

6. An 8-foot sounding between positions 24c and 25c, 37 seconds before 25c, is disproved by cross line between positions 27d and 28d.

7. A sounding of 10.2 feet about 20 seconds after 34c is disproved by cross line between positions 27d and 28d.

8. A sounding of 4.8 feet on position 62c falls on the line 54c to 55c, about 40 seconds after 54c, where there is no such shoal indication.

9. Soundings of 8 and 9 feet just after position 63c are disproved by positions 28d.

10. A small area, in the center of which is position 25 & 8

Shoal soundings disproved as noted

(continued on page 4)

31d (10 feet at MLW) has indications that it is several feet shoaler on each of the lines listed below:

(a) 45 seconds after position 28c
(b) 30 seconds after position 38c
(c) 30 seconds before position 45c
(d) 30 seconds after position 48c

Other lines across this area are 27d to 28d and 30d to 32d, but these lines give no indication of such a shoal area.

It appears that the erroneous fathometer returns could have been caused by (A) instrumental error (B) marine vegetation (C) character of the bottom or (D) fish. A discussion of these possibilities follows:

INSTRUMENTAL ERROR - An hour or two after the last soundings on c day, the fathometer developed trouble, giving no record at all. That and the fact that a different fathometer was used on d day would indicate the probability of instrumental error. But voltage was adequate and the speed of the fathometer was watched, as usual, during all of the sounding. Instrumental error does not explain the fact that only in one small area were these erroneous returns obtained.

MARINE VEGETATION - None approaching the indicated thickness has been found in these waters. No such growth was felt by pole or lead line on these spots.

CHARACTER OF THE BOTTOM - Hand lead and pole gave a very soft bottom at these places, but that usually means a faint record, not a shoal one.

FISH - This seems to be the most logical explanation. Dense schools of small fish are occasionally seen at or near the surface. If a school were capable of causing a return on the fathometer, it can easily be seen what confusion might be caused in an area such as this.

All of the fathogram returns of the spots listed above have similar appearances - little or no slope to the sides of the shoal record; a fairly ragged appearance; and a trace of medium density. In a few of the places, the bottom trace can be seen faintly under the other, but most of them do not have that. Also, in a few places the lower edge of the bottom trace indicates a true shoal.

During the sounding on d day, a 12-foot sounding pole was used extensively, but not recorded in the book where fathometer records were obtained. Hand lead and pole were used while drifting over the area of positions 58, 59 and 60d, with nothing shoaler than the recorded soundings obtained.

I. CONTROL OF HYDROGRAPHY:

Sextant fixes on definite control points were used in locating all hydrographic positions. An effort was made to obtain fixes at the edges of the channel, but that was not always possible. it is apparent that the unavoidable change in speed between deep water and very shoal in a few places caused large discrepancies on crossings of lines. In each of these cases the lines run parallel to the axis of the channel should be held and a speed adjustment made on the lines run across. One such case is between positions 116a and 117a, about 100 meters north of signal RUE. Between positions 203a and 204a are two 9-foot soundings which are evidently misplaced. I believe that the skiff got too close to the western side of the channel. Smooth plotter should show the vessel's path as bended out like that. There being no channel markers south of signal RIP, it was difficult to keep in the center of the channel at the southern end.

Corrections made

J. ADEQUACY OF SURVEY:

This survey is adequate for the purpose of delineating the channel in question. Junction with H-7970, 1952, at latitude 27° 40' is satisfactory. Junction at the southern end with H-4569, 1926, scale 1:10,000 and H-4578, 1926, scale 1:20,000 is satisfactory.

K. CROSSLINES:

The lines across the channel and along the channel in this restricted area make the usual system of crosslines unnecessary.

L. COMPARISON WITH PRIOR SURVEYS:

Comparison with H-7970, scale 1:10,000, 1952, shows very good agreement except in the channel at latitude 27° 40.55' where this survey shows 12 feet as compared to 7 feet on the 1952 survey. We had been told by the bridge engineers that one or two of the shoaler spots had been deepened since the original dredging. Agreement is very good with the two 1926 surveys (H-4569, 1:10,000 and H-4578, 1:20,000) the only differences being where the channel was dredged and the causeway fill deposited.

M. COMPARISON WITH CHART:

Comparison with chart No. 586, print date 12/14/53 shows that the causeway channel should be shown as extending southward and southeastward to deep water at latitude 27° 38.17', longitude 82° 40.48'. Daybeacon No. 2 is shown east of its true position.

N. DANGERS AND SHOALS:

None found.

O. COAST PILOT INFORMATION:

The ship SOSBEE anchored at Lat. 27° 41.84', Long. 82° 41.30' in Main Channel, in 13 feet of water, mud bottom.

The southern end of Causeway Channel is not marked. It cuts through the 4-foot shoal northeast of Mullet Key Shoal Light on the range of the western end of Whale Island with the tall elevated tank near Don-Ce-Sar Hotel north of Pass-a-Grille. Leave this range to line up the channel markers ahead, the channel extending straight on course 336° true for a distance of one nautical mile, or latitude 27° 39.1'. At this point, the channel bears right to course 357°true for 2.4 nautical miles to the east-west dredged channel through the drawbridge about 0.9 miles south of Maximo Point. Controlling depth in this channel is 11 feet at latitude 27° 39.6'.

This channel is at present (May 1954) well marked north of latitude 27° 38.9' by privately installed piles on both sides of the cut, with pointers on all and small reflectors on some of them. It should be noted that the lone piling which was used as signal FIN is not a marker for this channel, but apparently is an older one put in to mark the natural channel to Bunces Pass. While this party was working here, a small sailing yacht grounded just out of the channel, north of FIN. Apparently the navigator had confused FIN with the channel markers.

An extension of this channel to deeper water northeast of Indian Key and thus to the large yacht basin in Frenchman Creek is well marked by numbered, privately maintained daybeacons. This channel is deep in spots, but has a controlling depth of 6 feet at latitude 27° 41.77', as verified by pole soundings.

No current observations were taken. This survey was made during a period of small range of tide, so currents could be expected to be weak. No indication of axial currents in Causeway Channel were seen by the hydrographer. However, there were currents running across this channel at each of the three bridges near which sounding was done.

P. AIDS TO NAVIGATION:

There are no floating aids. A list of the fixed aids accompanies this report. Geographic positions as listed should be verified against the planetable sheet No. *SO-A-54 which has already been forwarded to Washington.* T-7109(1954) In the list are noted the many privately maintained aids along the new channel. The three numbered aids north of latitude 27° 41.6' are creosoted piles maintained by the owners of the yacht storage basin in Frenchman Creek. The other private aids are single piles with pointers but no numbers. Maintainence is not known.

The bridge about 0.9 miles south of Maximo Point is a double leaf bascule draw span with a horizontal clearance of 90 feet and a vertical clearance, at mean high water, of 21 feet at the center and 16.5 feet at either side of the channel.

The bridge over the natural channel to Bunces Pass is a fixed bridge with the center opening having a horizontal clearance of 50 feet and a vertical clearance, at mean high water, of 16 feet.

See T-7109 (1954)

Q. LANDMARKS FOR CHARTS:

None to be reported.

R. GEOGRAPHIC NAMES:

No report.

S. SILTED AREAS:

None found.

T. TABULATION OF APPLICABLE DATA:

Attached to this report are:

1. Statistics Sheet
2. Tide Note
3. Approval Sheet
4. List of Signals

14 May 1954

Submitted by;
Arthur L. Wardwell
Arthur L. Wardwell
CDR, U.S.C.& G.S.

APPROVAL SHEET

This special survey of a newly-dredged channel is considered adequate and complete for charting purposes. The sounding records and boat sheet have been inspected and are approved.

The smooth-sheet plotter of this hydrographic survey should be guided by information contained in this descriptive report, particularily paragraphs "H" and "I". Additional information is contained in the Special Report submitted covering "Channel & Causeway at North End of Tampa Bay Bridge, Florida."

18 May 1954

Roswell C. Bolstad
Comdr. USC&GS
Comdg. Ship SOSBEE

STATISTICS

For Hydrographic Sheet No. H- (SO-1554)

Project Scale 1:10,000

U.S.C.& G.S.S.SOSBEE R. C. Bolstad, Comdg.

Day Letter	Date 1954	Vol. No.	No. of Positions	Statute Miles	Pole Soundings
a	27 Apr.	1	214	24.3	300
b	28 "	1	82	13.3	none
c	29 "	1,2	72	8.0	9
d	10 May	2	65	7.1	20
	Totals		433	52.7	329

Area = 1.2 sq. statute miles

TIDE NOTE

All soundings in this survey were reduced to mean low water from observations on a tide staff at Pt. Pinellas.

LIST OF SIGNALS

Hydrographic Survey H- (Field No. SO-1554)

Name	Source
ANT	SO-A-54
BID	△ BID 1941-52
BOB	SO-A-54
BUNK	△ BUNK 1954
BUS	△ BUSH KEY (U.S.E.) 1937-49
EON	SO-A-54
FEZ	SO-A-54
FIN	SO-A-54
FOX	Volume 1
FUN	SO-A-54
MAX	△ MAXIMO 1908
MUL	△ MULLET KEY SHOAL LIGHT 1925
OAK	SO-A-54
PAN	△ SPANK 1954
RIP	SO-A-54
ROT	SO-A-54
ROY	SO-A-54
RUE	SO-A-54
SIT	SO-A-54
TAMP	△ TAMP 1954
WAX	SO-A-54

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

TO BE CHARTED / ~~TO BE DELETED~~ — STRIKE OUT ONE

Sarasota, Florida, 14 May, 1954

I recommend that the following objects which have (~~have not~~) been inspected from seaward to determine their value as landmarks be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing by _____

Roswell C. Bolstad
Chief of Party.

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE ° ′	LAT. D.M. METERS	POSITION LONGITUDE ° ′	LONG. D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
Platform	Observing stand, bridge engineer's	ANT	27 37	1694	82 40	903	N.A. 1927	SO-A-54 T-7109	1954		8		586 1257
Pipe	2-inch pipe with pointer	RIP	27 38	1132	82 40	1164	"	"	"		/		"
Pipe	2-inch pipe		27 38	1205	82 40	1203	"	"	"		/		"
Pile	Channel marker, privately maintained		27 38	1491	82 40	1324	"	"	"		/		"
Pile	do.		27 38	1636	82 40	1270	"	"	"		/		"
Pile	do.	RUE	27 38	1710	82 40	1427	"	"	"		/		"
Pile	do.	T-7109	27 39	68	82 40	1427	"	"	"		/		"
Pile	do.	RUE 8/16/54	27 39	127	82 40	1545	"	"	"		/		"
Pile	do.		27 39	253	82 40	1485	"	"	"		/		"
Pile	do.		27 39	422	82 40	1503	"	"	"		/		"
Pile	do.		27 39	434	82 40	1576	"	"	"		/		"
Pile	Single pile, ummarked	FIN	27 39	1038	82 41	33	"	"	"		/		"
Pile	Channel markerm privately maintained		27 39	1051 (1151)	82 40	1608	"	"	"		/		"
Pile	do.		27 39	1204	82 40	1533	"	"	"		/		"

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE: 1949 O - 853418

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

TO BE CHARTED / ~~TO BE DELETED~~ } STRIKE OUT ONE

_____, 19____

I recommend that the following objects which have ~~(have not)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing by _____

Roswell C. Bolstad

Chief of Party.

STATE			POSITION					METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
			LATITUDE		LONGITUDE		DATUM						
CHARTING NAME	DESCRIPTION	SIGNAL NAME	° ′	D.M. METERS	° ′	D.P. METERS							
Pile	Channel marker, privately maintained		27 40	00	82 40	1564	N.A. 1927	SO-A-54	1954		/		586 1257
Pile	do.	XXX	27 40	500	82 40	1579	"	"	"		/		"
Pile	do.	✓ T-7109 MJE 8/16/54	27 40	599	82 41	034	"	"	"		/		"
Pile	do.		27 40	1315	82 40	1623	"	"	"		/		"
Pile	do.		27 40	1786	82 41	012	"	"	"		/		"
Pile	do.		27 41	262	82 41	092	"	"	"		/		"
Pile	do.		27 41	503	82 41	034	"	"	"		/		"
Bn.	Daybeacon No. 2 Privately maintained	FUN	27 41	1203	82 41	054	"	"	"		/		"
Bn.	Daybeacon 16		27 41	1002	82 41	303	"	"	"		/		"
Bn.	Daybeacon 17	✓ T-7109 MJE 7/9/54	27 41	900	82 41	704	"	"	"		/		"
Light	Light 14		27 41	1079	82 40	677	"	"	"		/		"
Bn.	Daybeacon 13		27 41	1007	82 40	638	"	"	"		/		"
Bn.	Daybeacon No. 4 Privately maintained	✓ FE 3-1954 FOX	27 42	180	82 41	048	"	Sextant SO-1554	"		/		"
Bn.	Daybeacon No. 6 Privately maintained	MJE 7/9/54	27 42	657	82 41	029	"	"	"		/		"

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This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

Verified on Chf 858, MJE 7/9/54

U. S. GOVERNMENT PRINTING OFFICE: 1949 O - 853418

Form 418
Ed. March 1942

REFER TO No.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LETTER TRANSMITTING FIELD RECORDS

Tampa, Florida

19 May 1954, 19

To: The Director, U. S. Coast and Geodetic Survey, Washington, D. C.

From: Roswell C. Bolstad, C. and G. Survey, Chief of Party.

Subject: Records.

Records as listed below were forwarded to you by ordinary mail
(Ordinary mail, registered mail, air mail, express, G. B. L. (give number))

on 19 May 1954
(Date records were forwarded)

(NOTE.—A separate copy of this form is to be used for each of different kinds of records, as tidal data, seismology, geomagnetism, etc. If this form covers the transmission of more than one package of a particular kind of record the form is to be carried a statement of the number of packages and an executed copy of the form is to be included in each package.)

Ship SOBEK
Records for Hydrographic Sheet No. HC-1554
Lower Tampa Bay, Florida
Causeway Channel

Pkg. No. 1	4 ea. Pathgram records, a, b, c, & d days.
" " 2	1 ea. Boat sheet, H-1554
" " 3	Descriptive Report, Hydrographic Sheet Special Report
" " 4	Tide Data: Level Record (1 vol. Form 258) Tides (1 vol. Form 277) Report of Tide Station

Roswell C. Bolstad
CDR
C. and G. Survey, Chief of Party.

Received the above:

Administrative Officer, Coast and Geodetic Survey.

This form and one copy should be sent to the office. The copy will then be returned as a receipt. This form should not be used for correspondence.

U. S. GOVERNMENT PRINTING OFFICE 16—14204-8

22/MEK
8-2-30

24 March 1954

To: Commanding Officer
USC&GS Ship SOSEKK
P. O. Box 1158
Sarasota, Florida

Subject: Channel along west side of causeway at north end of Tampa Bay Bridge

1. In 1952, the SOSEKK made a hydrographic survey which delineates the dredged channel along the west side of the causeway at the north end of the Tampa Bay bridge north of approximate latitude 27° 39.5'.

2. It is believed that this channel may extend south to the deep water in the vicinity of Mullet Key Shoal Light. The Corps of Engineers and the bridge engineer shall be contacted to ascertain whether a channel exists in this area, and if surveys suitable for charting purposes have been made. If surveys have been made, copies of the surveys shall be requested and sent to this office. A section of chart 586 is furnished showing the area in which the hydrographic information is desired.

3. If a channel suitable for the use of small boats exists in this area, and a survey has not previously been made, a 1:10,000-scale survey shall be made by the SOSEKK. The extent of the survey shall be sufficient to obtain the controlling depths, and to outline the edges of the channel. The sounding lines shall be spaced at intervals of approximately 50 meters.

4. Copies of triangulation data and recoverable topographic stations in this vicinity are furnished. If not available on the SOSEKK, a copy of the 1952 hydrographic survey will be furnished on request.

5. The survey shall be made at a time when it will least interfere with work on project CS-353.

6. Tidal data for the reduction of soundings shall be obtained by establishing a tide staff at Point Pinellas, and recording readings at half-hourly intervals during the progress of hydrography. Bench-mark data for this location are furnished.

7. All work shall be in accordance with standard practices and the applicable operating manuals.

8. The records for this survey shall be submitted to the Washington Office in the form of a special report at an early date after the field work is completed.

9. You will please acknowledge the receipt of this letter.

(Signed) R.F.A. Studds

Director

Supervisor, Southern District

cc. Supervisor, Southeastern District
Tides & Currents Division
Chart Division

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
JACKSONVILLE DISTRICT
575 RIVERSIDE AVENUE
JACKSONVILLE 4, FLORIDA

ADDRESS REPLY TO:
DISTRICT ENGINEER
JACKSONVILLE DISTRICT
CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE 1, FLORIDA

REFER TO FILE NO

AIR MAIL

SAKWR 000.7 N. R. 9 February 1954

Mr. Fessenden S. Blanchard
Fessenden Blanchard & Morrell
Marketing and Management Consultants
420 Lexington Avenue
New York 17, N. Y.

Dear Mr. Blanchard:

Reference is made to your letter of 1 February 1954, requesting information concerning the causeway bridge across Tampa Bay and waterway channels along the Gulf Coast. This office is pleased to furnish the following information in answer to your questions in the order asked:

1. Information as to when the causeway bridge will be completed and open for traffic is not available in this office. The permit, issued in June 1950, expires in June 1954. It is understood that considerable progress has been made to date. For further information it is suggested that you contact the Florida State Road Department at Tallahassee, Fla.

2. The channel you refer to is the one that was dredged to provide fill for the causeway structure shown on U.S.C.G.S. Coast Chart 1257. That channel is 1,700 to 2,000 feet west of and generally parallel to the causeway fill. It extends from the Boca Ciega Bay channel south and southeast to deep water near the Tampa Bay ship channel. Planned depth was 12 feet m.l.w., however, the State Road Department reports that rock encountered in dredging limits the controlling depth to 10.5 feet. The authorized 9-foot-depth Intracoastal Waterway will follow that dredged alinement.

3. Present controlling depth in the Sarasota-Venice Waterway is not known. When last surveyed in November 1945, controlling depth in midchannel was 3 feet.

4. The policy of the Corps of Engineers is to maintain completed project channels to the minimum depth required for existing traffic. However, funds for maintenance are extremely limited, and it is necessary to apply those funds to channels where the volume of commerce and traffic indicate the greatest need. The authorized 9-foot waterway from Caloosahatchee River to Anclote River (Tarpon Springs) has not yet been constructed. Until such time as the 9-foot channel is provided, any interim maintenance would be limited to the depths and reaches improved under previous projects, as follows:

AIR MAIL

SAKWR 000.7 N.R. (1 Feb 54) 9 February 1954
Mr. Fessenden S. Blanchard

Pine Island Sound, 7 feet
Venice to Sarasota, 3 feet
Sarasota to Tampa Bay, 7 feet
Tampa Bay to Boca Ciega Bay, 8 feet
Boca Ciega Bay, 7 feet
Boca Ciega Bay to Clearwater Harbor, 5 feet

Project depth for the completed channel from Naples to Big Marco Pass is 6 feet.

It is hoped that the above information is sufficient for your present needs. Additional information desired will be furnished on request.

FOR THE DISTRICT ENGINEER:

Sincerely yours,

Jack E. Harns

JACK E. HARNS
Chief, Engineering Division

E

83 jec

Coastal Surveys 3 March 1954

Chief, Division of Charts

Survey of recently dredged channel in Tampa Bay

It is requested that the recently dredged channel accomplished in connection with the construction of the Causeway for the new bridge across Tampa Bay be surveyed as soon as practicable.

Information is available that this channel is being used extensively by small boats and that the State Road Department reports a controlling depth of 10½ feet.

The Corps of Engineers have stated that the authorized 9-foot depth in the Intracoastal Waterway will follow the dredged channel. The channel referred to is indicated on the enclosed section of Chart 586.

Chief, Division of Charts

Enclosure

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

TIDE NOTE FOR HYDROGRAPHIC SHEET

29 June 1954

~~Division of Coastal Surveys~~

Division of Charts: R. H. Carstens

Plane of reference approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET SO 1554

Locality Tampa Bay, Florida

Chief of Party: R. C. Bolstad in 1954
Plane of reference is mean low water, reading
2.0 ft. on tide staff at Point Pinellas
7.8 ft. below B. M. 1 (1952)

Height of mean high water above plane of reference is 1.4 feet.

Condition of records satisfactory except as noted below:

E.C. McKay
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 877933

GEOGRAPHIC NAMES

Survey No. F.E.No.3, 1954

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
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										15
										16
										17
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										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.No.3. 1954

Records accompanying survey:

Boat sheets .....; sounding vols. .....; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls .....;

special reports, etc. .....

.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		433
Number of positions checked		20
Number of positions revised		5
Number of soundings revised (refers to depth only)		15
Number of soundings erroneously spaced		6
Number of signals erroneously plotted or transferred		—
Topographic details	Time	—
Junctions	Time	—
Verification of soundings from graphic record	Time	2

Verification & replotting hydro by D.A. Dinsmore Total time 40 Date 8/3/54

Reviewed by D.A. Dinsmore Time 16 Date 8/5/54

M-2232-1

REVIEW OF FIELD EXAMINATION NO. 3 (1954)

1. The purpose of this field examination was to determine the depths and location of the causeway channel south of lat. 27°40' which marks the southern limits of the work accomplished on H-7970 (1952). Additional channel lines were also run north of lat. 27°40' to supplement the work of 1952. The origin of the shoreline and signals is given in the Descriptive Report.

2. In the general vicinity of lat. 27°42', long. 82°41°, numerous shoal fathometer returns were obtained among deeper depths on "c" day's work. Subsequent fathometer and pole sounding on "d" day disproved the existence of the shoaler (psuedo) depths. The subject matter is comprehensively discussed in paragraphs H. and I. of the Descriptive Report. The area involved has been replotted during verification. The numerous shoal traces on the fathograms may have been returns from debris or sludge temporarily deposited in the area.

3. A comparison of the present depths with those on prior surveys H-4569 and H-4578 (1926) reveals radical bottom changes. The changes have, of course, resulted from the dredging of the causeway channel together with the creation of the causeway fills, both of which are of recent origin. Present depths at the outer limits of the flats bordering the channel are in adequate agreement with the prior depths. Within the common area, the present field examination supersedes the prior surveys.

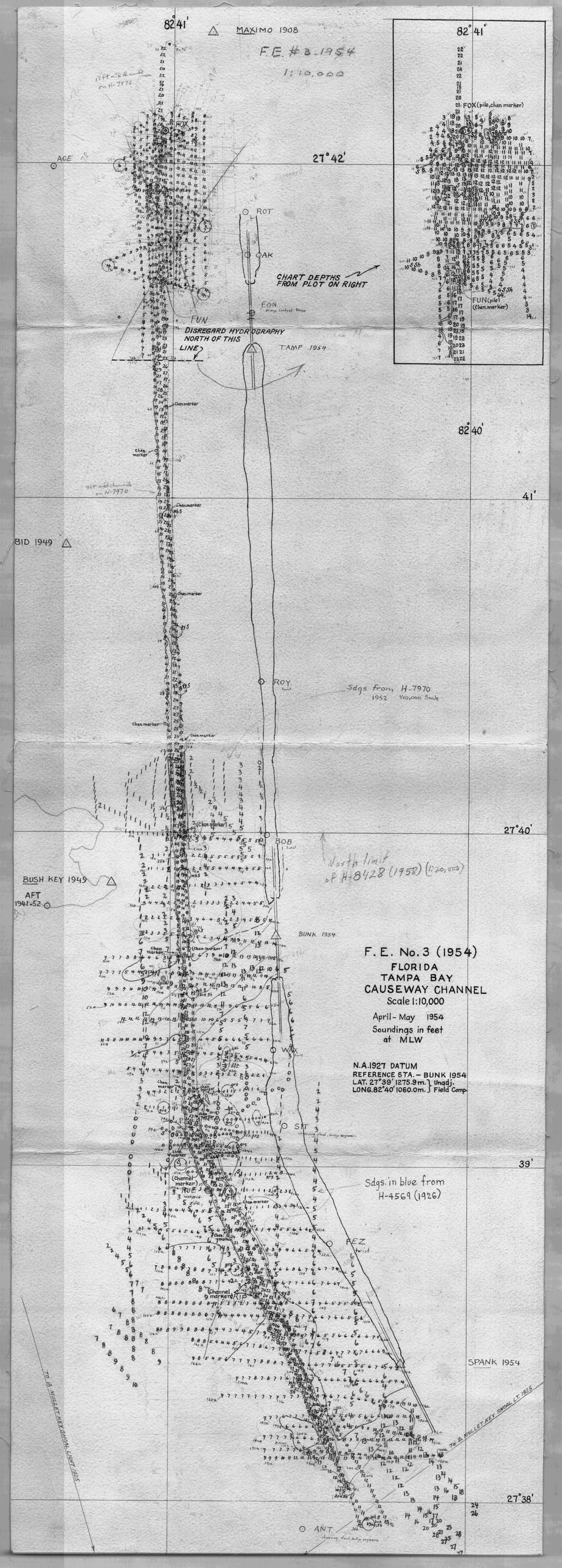
4. Present depths are generally in close agreement with the depths on H-7970 (1952). However, it should be noted that the present examination indicates that 12 ft. of water can be carried through the channel in the vicinity of lat. 27° 40.52', long. 82°41.00, where 7 ft. is now charted (Chart 586) from H-7970.

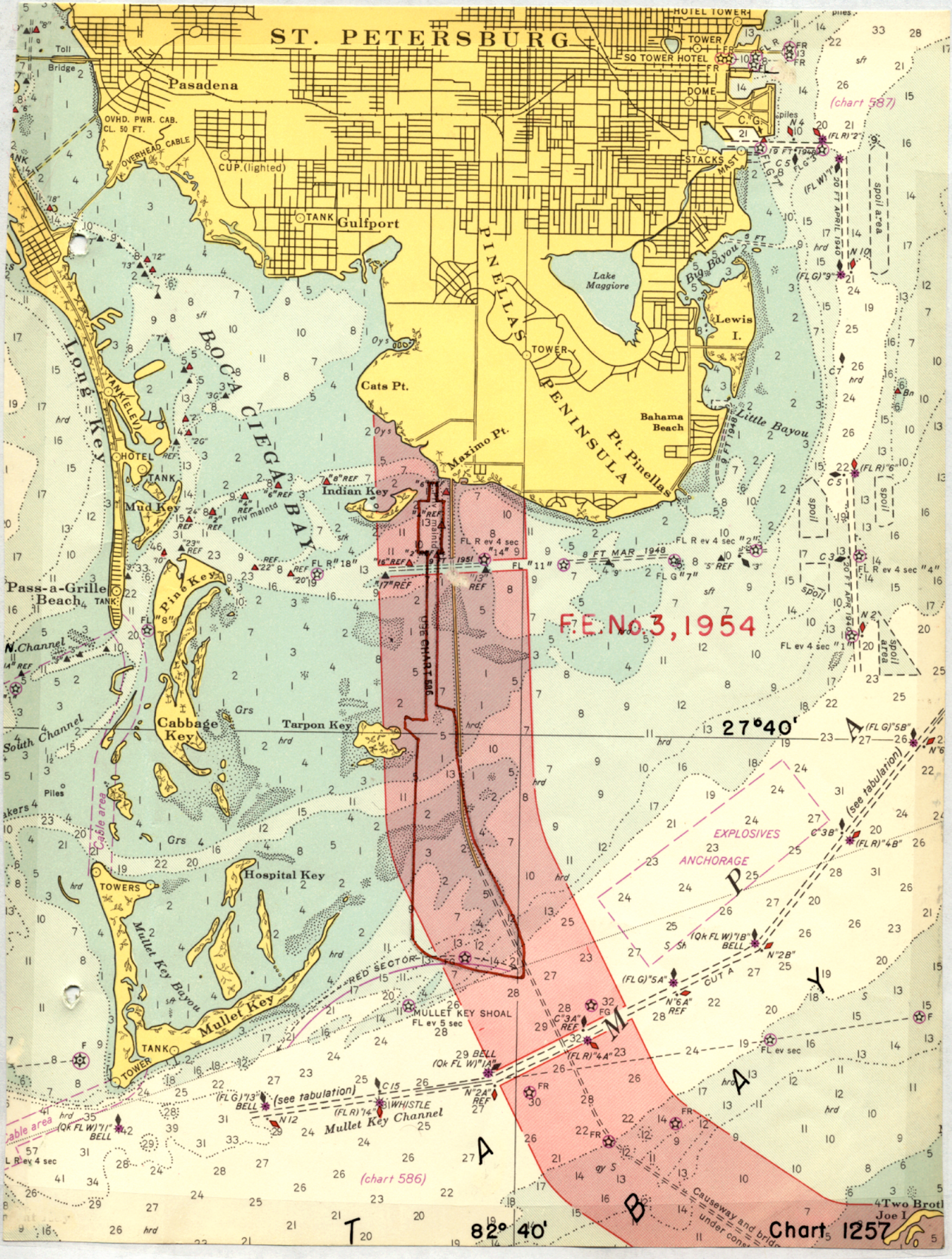
5. Charted hydrography north of lat. 27°40' on Chart 586 (print date 12/14/53) originates with H-7970 (1952). South of lat. 27°40', the charted hydrography is from the early surveys of 1926 previously discussed in paragraph 3. The present field examination completely supersedes the information charted from the 1926 surveys and <u>should supplement the information charted from H-7970 (1952).</u>

Chart 858 covers only a small portion of the northern part of the present examination. Information from the present examination has been fully and accurately applied to Chart 858.

T. A. Dinsmore
5 August 1954

Inspected by - R. H. Carstens


82°41'
MAXIMO 1908
F.E. #3.1954
1:10,000
82°41'
FOX (pile, chan. marker)
ACE
27°42'
ROT
OAK
CHART DEPTHS FROM PLOT ON RIGHT
FON
FUN
DISREGARD HYDROGRAPHY NORTH OF THIS LINE
TAMP 1954
FUN (pile) (Chan. marker)
82°40'
41'
BID 1949
ROY
Sdgs from H-7970 1952 1/10,000 Scale
27°40'
BOB
Northern limit of H-8428 (1958) (1:20,000)
BUSH KEY 1949
AFT 1941-52
BUNK 1954
F. E. No. 3 (1954)
FLORIDA
TAMPA BAY
CAUSEWAY CHANNEL
Scale 1:10,000
April - May 1954
Soundings in feet at MLW
N.A.1927 DATUM
REFERENCE STA. – BUNK 1954
LAT. 27°39' 1275.9m. } Unadj.
LONG. 82°40' 1060.0m. } Field Comp.
WAX
SAT
39'
Sdgs. in blue from H-4569 (1926)
REZ
SPANK 1954
TO ⊕ MULLET KEY SMOKE LIGHT 1925
TO ⊕ MULLET KEY SMOKE LT 1925
27°38'
ANT


ST. PETERSBURG
Pasadena
Gulfport
PINELLAS PENINSULA
Pt. Pinellas
Lake Maggiore
Big Bayou
Little Bayou
Lewis I.
Bahama Beach
Cats Pt.
Maximo Pt.
Indian Key
Mud Key
Long Key
BOCA CIEGA BAY
Pass-a-Grille Beach
Ping Key
Cabbage Key
Tarpon Key
Hospital Key
Mullet Key
Mullet Key Bayou
Mullet Key Channel
South Channel
N. Channel
MULLET KEY SHOAL
FL ev 5 sec
RED SECTOR
EXPLOSIVES ANCHORAGE
Cable area
Causeway and bridge under construction
F.E. No. 3,954
(chart 587)
(chart 586)
(see tabulation)
27°40'
82°40'
Chart 1257

NAUTICAL CHARTS BRANCH

SURVEY NO. FE 3 (1954)

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
7/9/54	858	[illegible]	Before ~~[illegible]~~ Verification and Review (No correction after review - see review HFS 11/17/54)
8/20/54	586	[illegible]	~~Before~~ After Verification and Review partial
2-4-55	1257	[illegible]	~~Before~~ After Verification and Review Partial appd three chs 586 Buff Dated 11-15-54
2 Nov 61	586	[illegible]	~~Before~~ After Verification and Review Complete
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.